

### **REMARKS**

The Official Action mailed March 29, 2011, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on June 23, 2006 and January 23, 2008.

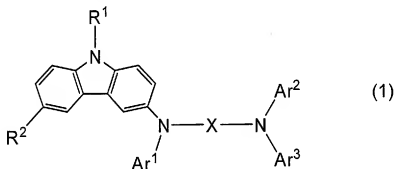
Claims 1-27 were pending in the present application prior to the above amendment. New claim 28 has been added to recite additional protection to which the Applicant is entitled. Accordingly, claims 1-28 are now pending in the present application, of which claims 1-3, 7-9, 13-15 and 19-21 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 3 of the Official Action rejects claims 1-5, 7-11, 13-17, 19-23 and 25-27 as obvious based on the combination of JP 1998-310574 to Kitahora, U.S. Publication No. 2001/0022497 to Aoki and U.S. Publication No. 2005/0098207 to Matsumoto. Paragraph 4 of the Official Action rejects claims 1-4, 6-10, 12-16, 18-22 and 24-27 as obvious based on the combination of Kitahora, Aoki, Matsumoto and U.S. Patent No. 6,541,129 to Kawamura. The Applicant respectfully traverses the rejection because the Official Action has not made a *prima facie* case of obviousness.

As stated in MPEP §§ 2142-2144.04, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some reason to do so found

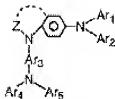
either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims. Independent claims 1-3 recite a carbazole derivative represented by a general formula (1) (shown below),

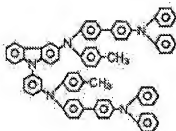


wherein  $R^1$  represents any one of hydrogen, an alkyl group having 1 to 6 carbon atoms, an aryl group having 6 to 25 carbon atoms, a heteroaryl group having 5 to 9 carbon atoms, an arylalkyl group and an acyl group having 1 to 7 carbon atoms. Similar subject matter is recited in independent claims 7-9, 13-15 and 19-21, with respect to a carbazole derivative represented by general formulae (3), (5) and (103), respectively. For the reasons provided below, Kitahora, Aoki, Matsumoto and Kawamura, either alone or in combination, do not teach or suggest the above-referenced features of the present invention.

Please incorporate the detailed arguments set forth at pages 2-7 of the *Response* filed on January 21, 2011. The Official Action asserts that Kitahora "discloses an amino compound represented by the following general formula to be in the hole-transporting layer ([0078]):

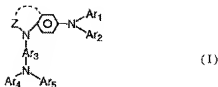


((I), page 2) where Z = forms a ring with the nitrogen and benzene ring (but does not explicitly say it cannot be substituted" and that "Kitahora et al. disclose a wide variety of such compounds including:



((19), page 7) such that  $R^2$  = hydrogen,  $Ar^1$  = aryl group having 7 carbon atoms (substituted phenyl group,  $Ar^2 = Ar^3$  = aryl group having 6 carbon atoms ..." (pages 3 and 4, Paper No. 20110321). Furthermore, in response to the Applicant's arguments that compound 19 of Kitahora, on which the Official Action expressly relies, only potentially teaches that an alleged  $R^1$  has 37 carbon atoms, not 18 or 25 as the Official Action asserts, the Official Action asserts that:

"The Applicant disagrees on page 3 with the assertion that  $R^1$  of Formula (1) as defined by the Applicant only potentially teaches that it has 37 carbon atoms. As explained in the above rejection, it is the position of the Examiner that there is sufficient motivation to modify Compound 19 as disclosed by Kitahora et al. such that  $R^1$  meets the limitations as claimed by the Applicant (i.e.,  $R^1$  = aryl group with 18 carbon atoms). The motivation is clearly provided by the fact that the invention of Kitahora et al. is not explicitly limited to the possible embodiments of the general formula (Formula (I)) shown below:



where Ar3-Ar5 can be aryl groups, the most obvious of which are phenyl groups as exemplified by Compound 1" (page 12, Paper No. 20110321).

Initially, the above portion of the Official Action appears to inadvertently mischaracterize or confuse the Applicant's above-mentioned argument. Accordingly, the Applicant traverses the Official Action's mischaracterization that "the Applicant disagrees on page 3 with the assertion that R<sup>1</sup> of Formula (1) as defined by the Applicant only potentially teaches that it has 37 carbon atoms" and again notes that Applicant has specifically argued that "compound 19 of Kitahora, on which the Official Action expressly relies, only potentially teaches that an alleged R<sup>1</sup> has 37 carbon atoms, not 18 or 25 as the Official Action asserts," as described in detail at pages 2-7 of the Response filed on January 21, 2011.

Furthermore, the Official Action assertion that the motivation to modify Kitahora's Compound 19 "such that R<sup>1</sup> meets the limitations as claimed by the Applicant (i.e., R<sup>1</sup> = aryl group with 18 carbon atoms) ... is clearly provided by the fact that the invention of Kitahora et al. is not explicitly limited to the possible embodiments of the general formula (Formula (I))" does not articulate a specific reason to so modify Kitahora. That is, the test for obviousness is not whether the references "could have been" combined or modified as asserted in the Official Action, but rather whether the references should have been. As noted in MPEP § 2143.01, "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art" (emphasis in original). KSR International Co. v. Teleflex Inc., 550 U.S. \_\_\_, \_\_\_, 82 USPQ2d 1385, 1396 (2007). Thus, it is respectfully submitted that the standard set forth in the Official Action is improper to support a finding of *prima facie* obviousness.

The Official Action expressly relies on Compound 19 of Kitahora but concedes that the compound does not meet the limitations as claimed by the Applicant (page 4, Paper No. 20110321). The Official Action alleges that it would have been obvious to modify Kitahora's Compound 19 to meet the specific limitations of the Applicant's claims based on the unsupported allegation that "the invention of Kitahora et al. is not explicitly limited to the possible embodiments of the general formula (Formula (I)) [the general formula on which the Official Action explicitly relies]" (pages 3 and 12, id.). The Applicant respectfully disagrees and traverses the assertions of the Official Action. The general allegation that a reference is not explicitly limited to its own disclosure does not articulate a specific reason why one of ordinary skill in the art would have found it obvious to depart from such disclosure. To the contrary, the Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. § 103 should be made explicit (KSR International Co. v. Teleflex Inc., 550 U.S. \_\_\_, 82 USPQ2d 1385). The Court quoting In re Kahn (441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)) stated that "[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." KSR, 550 U.S. at \_\_\_, 82 USPQ2d at 1396.

In any event, it appears to now be the position of the Examiner, that it would have been possible to synthesize Compound 1 by substituting the hydrogen at a para position of Ar<sup>1</sup> (Phenyl) of Compound 1 with the -NPh<sup>2</sup> group. The Applicant respectfully disagrees and traverses the apparent assertion of the Official Action. One of ordinary skill in the art at the time of the invention would have adopted Kitahora's Compound 19 in the manner described by the reference without synthesizing the Compound 1 all the way.

Therefore, the Applicant respectfully submits that Kitahora, Aoki, Matsumoto and Kawamura, either alone or in combination, do not teach or suggest the claimed

carbazole derivative and do not adequately explain why it would have been obvious to modify any of compounds 1-3 and 19 of Kitahora.

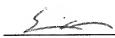
Since Kitahora, Aoki, Matsumoto and Kawamura do not teach or suggest all the claim limitations and since it would not have been obvious to further modify Kitahora, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

New claim 28 has been added to recite additional protection to which the Applicant is entitled. For the reasons stated above and already of record, the Applicant respectfully submits that new claim 28 is in condition for allowance.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized to charge fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(a), 1.20(b), 1.20(c), and 1.20(d) (except the Issue Fee) which may be required now or hereafter, or credit any overpayment to Deposit Account No. 50-2280.

Respectfully submitted,

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